



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,132	11/05/2003	Dennis D. Bicker	1033-SS00355	6845
60533	7590	08/27/2007	EXAMINER	
TOLER SCHAFFER, LLP			DESIR, PIERRE LOUIS	
8500 BLUFFSTONE COVE				
SUITE A201				
AUSTIN, TX 78759				
			ART UNIT	PAPER NUMBER
			2617	
			MAIL DATE	DELIVERY MODE
			08/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/702,132

Applicant(s)

BICKER ET AL.

Examiner

Pierre-Louis Desir

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7, 14, 15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14, 15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed on 06/12/2007 have been fully considered but they are not persuasive.

1. As related to claim 1, Applicants argue that Fors et al. does not disclose, "receiving an internet protocol address associated with a wireless local area network base station.

Examiner respectfully disagrees with Applicants, as stated by Applicants in the REMARKS section, Fors disclose that a dual mode mobile phone, capable of communicating with both a cellular network and a wireless local area network, **establishes contact with a WLAN access point, which involves obtaining an IP address for the mobile phone.** Thus, Fors discloses that the mobile phone obtains an IP address when contact is established between the mobile phone and the WLAN access point. This IP address that the mobile phone obtains when in contact with the WLAN AP is associated with the WLAN AP. Further Applicants have not specifically pointing out how the language of the claim patentably distinguishes it from the portion cited in the reference. Therefore, Applicants' arguments fail to comply with 37 CFR 1.111(b). Also, Examiner respectfully reminds applicants that broadly written claims are broadly interpreted by Examiner.

Regarding claim 4, Applicants argue that Ibe et al. does not disclose that an Internet protocol address associated with a WLAN base station is communicated to a mobile phone using a dynamic host configuration protocol. Instead, continue applicants, Ibe discloses that after a laptop computer has been successfully authenticated, the laptop obtains its own IP address through a DHCP server.

Art Unit: 2617

Again, Applicants have not specifically pointed out how the language of the claim patentably distinguishes it from the portion cited in the reference. Applicants fail to comply with 37 CFR 1.111(b). Further, as disclosed above, Fors discloses a mobile phone that establishes contact with a WLAN access point. The establishing of contact involves the mobile phone obtaining an IP address. As disclosed in the previous rejection, Fors does not specifically disclose a method wherein the Internet protocol address is communicated to the mobile phone using a dynamic host configuration protocol. For this limitation, Examiner cited Ibe et al. Ibe et al. discloses a method wherein Internet protocol address is communicated to a mobile phone using a dynamic host configuration protocol (see paragraph 42). And a proper motivation to combine was stated in the issued rejection.

Claim 14 has been amended.

Regarding claim 14, Applicants argue that Fors does not disclose a memory to store an internet protocol address associated with a wireless local area network base station and received by the mobile phone from the WLAN.

Examiner respectfully disagrees with Applicants. Fors discloses a mobile phone that is comprising of a memory (see col. 5, lines 64-65). Fors also discloses that the dual mode mobile phone is capable of communicating with both a cellular network and a wireless local area network, **establishes contact with a WLAN access point, which involves obtaining an IP address for the mobile phone.** As stated above, Fors discloses that the mobile phone obtains an IP address when contact is established between the mobile phone and the WLAN access point. Thus, this IP address that the mobile phone obtains when in contact with the WLAN AP is

associated with the WLAN AP. And, since the mobile phone obtains the IP address, inherently this IP address is stored within the mobile phone.

Regarding claim 15, Applicants argue that Fors does not disclose or suggest a mobile phone device, including a wide area cellular communications module and a short-range wireless local area network module, that are computed software modules integrated within a digital processor device.

Examiner respectfully disagrees with Applicants. First, Examiner wants to state his assumption that the Applicants are not trying to claim the software modules. Fors discloses that MS 201 is a dual-mode mobile phone capable of communicating with both the cellular network (i.e., using wide area cellular communication module) and the WLAN network (i.e., using WLAN or short-range communication module). And, the dual-mode mobile station includes a processor, a dual-mode transmitter and a dual-mode receiver (see col. 3, lines 64-col. 4, line 2). Therefore, the cited passage reads on the claim as written.

Regarding claims 5 and 18, Applicants argue that Chandra does not disclose determining that a mobile phone has moved out of range of a WLAN base station, and sending a message to a cellular network element to cancel call forwarding to the WLAN base station (or the previously communicated call forwarding message to be sent to the remote wide area cellular network (claim 18)).

Examiner respectfully disagrees with Applicants. As disclosed in the previous rejection, Ibe discloses a method comprising determining that the mobile phone has moved out of range of the wireless local area network base station (see Ibe abstract and paragraphs 45-46). Ibe discloses a method that enables a mobile device to originate a data connection in a WLAN and have this

Art Unit: 2617

data connection be automatically handed off to the WWAN without losing the connection when the user goes outside the range of the WLAN (see abstract, and paragraphs 18, 45-46). Thus, it would have been obvious to one skilled in the art to immediately envision that when data connection is handed off to the WWAN, communication between the mobile phone and the WWAN is done through the WWAN spectrum (i.e., cellular spectrum). To the contrary to what Applicants have stated in the Remarks section, Chandra was not cited for the disclosure of that limitation. Chandra was cited to disclose or suggest the limitation, "sending a message to the cellular network element to cancel call forwarding to the wireless local area network." Chandra discloses that when a mobile node (i.e., mobile station) roams back to the home network, the mobile node sends a deregistration request to the home agent, requesting the home agent to delete its bindings. The mobile node can delete the bindings to the mobile node. If a tunnel were created, it would also be deleted (see paragraphs 39-40). As disclosed in the previous rejection, it would have been obvious to one skilled in the art (combining the teachings of Chandra with Fors and Ibe) that when the mobile node roams back to the home network, it sends a message (i.e., deregistration message) which indicates to the home agent to delete bindings, tunnel information (i.e. care-of-address), which would indicate that the forwarding of data using the care-of-address (as related to tunneling) will be cancelled. It would also be obvious to one skilled in the art to immediately envision (combination the teachings of Chandra with Fors and Ibe) that if the mobile node roams back to its network, the home network will be ending data directly to the mobile node without using bindings or tunnel, since that information would be canceled.

Note: Examiner refers Applicants to the cited paragraphs of Chandra (i.e., paragraphs 39-40) and Examiner's reasoning. Applicants have not addressed the specific citation and reasoning

Art Unit: 2617

disclosed in the previous rejection. Further, Applicants have not specifically pointing out how the language of the claim patentably distinguishes it from the portion cited in the reference.

In response to Applicants' argument regarding claim 6, Ibe discloses a method that enables a mobile device to originate a data connection in a WLAN and have this data connection be automatically handed off to the WWAN without losing the connection when the user goes outside the range of the WLAN (see abstract, and paragraphs 18, 45-46). Thus, it would have been obvious to one skilled in the art to immediately envision that when data connection is handed off to the WWAN, communication between the mobile phone and the WWAN is done through the WWAN spectrum (i.e., cellular spectrum).

Note: Examiner understand the Applicants' arguments, however, from the writing of the claims, Examiner broadly interprets the claims since they are broadly recited.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 14-15, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fors et al. (Fors), Patent No. 6931249 in view of Ibe et al. (Ibe), Pub. No. US 20040218575.

Regarding claim 1, Fors discloses a method comprising: determining that the mobile phone is within range of a wireless local area network base station with voice over internet

protocol capability (i.e., as the mobile station moves within the coverage area of WLAN AP, the mobile station performs signal strength measurements) (see col. 5, lines 62-63); receiving an internet protocol address associated with the wireless local area network base station (i.e., the mobile station establishes contact with AP 210, wherein establishing contact involves obtaining an IP address) (see col. 5, lines 64-65).

Although Fors discloses a method as described, Fors does not specifically disclose a method comprising sending a call forwarding message including the internet protocol address from the mobile phone to a remote cellular network element of a wide area cellular network.

However, Ibe discloses a method wherein when a mobile node connects to a foreign network, which is any network that is not its home network, it registers its care-of-address (COA) with the home agent, which is a router that serves the mobile nodes in a given network. The home agent uses the COA to forward packets arriving at the home network and destined for the mobile node. The tunnel from the home agent terminates at the foreign agent (a router in the visited (foreign or roaming) network whose IP address the mobile uses as its COA), and it is the responsibility of the foreign agent to forward packets arriving via the tunnel to the mobile node (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).



Regarding claims 2, 7, and 19, Fors discloses a method as described above (see claim 1 rejection).

Although Fors discloses a method comprising communicating using voice over Internet protocol (reads on claim 7) (see col. 4, lines 45-54), Fors does not specifically disclose a method wherein the cellular network redirects a call destined to the mobile phone to the wireless local area network base station for communication with the mobile phone using the voice over Internet protocol.

However, Ibe discloses a method wherein a home network (i.e., cellular) redirects a call destined to the mobile phone (node) to the foreign network (WLAN) for communication with the mobile phone (see paragraphs 7-8). Ibe further discloses a method wherein the call (i.e., packets) destined to the mobile phone is communicated between the remote cellular network element (i.e., home agent) and the wireless local area network base station (i.e., foreign agent) without utilizing a public switched telephone network (i.e., the home agent forward packets using the COA to the mobile node---read on claim 19) (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).

Regarding claim 3, Fors discloses a method (see claim 1 rejection) wherein the mobile phone determines that it is in range of the wireless local area network by receiving a message in accordance with an IEEE 802.11 communication protocol (i.e., the mobile station monitors for

Art Unit: 2617

WLAN (WLAN is a known wireless infrastructure such as that conforming to the IEEE 802.11 standard) availability and establishing contact with the WLAN, which includes obtaining IP address from the WLAN (col. 3, lines 11-21, and 37-39, and col. 5, lines 62-65).

Regarding claim 4, Fors discloses a method as described above (see claim 1 rejection).

Although Fors discloses a method as described, Fors does not specifically disclose a method wherein the Internet protocol address is communicated to the mobile phone using a dynamic host configuration protocol.

However, Ibe discloses a method wherein Internet protocol address is communicated to a mobile phone using a dynamic host configuration protocol (see paragraph 42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as described by Fors to arrive at the claimed invention. A motivation for doing so would have been to reduce the work necessary involved in the distribution of IP addresses.

Regarding claim 14, Fors discloses a mobile phone (see abstract) device comprising: a housing (see fig. 2b); an antenna attached to the housing (see fig. 2b); a memory disposed within the housing (see fig. 2b, col. 4, line 8), the memory to store an Internet protocol address associated with a wireless local area network base station (see response to argument section above) received by the mobile phone from a wireless local area network (the MS obtains an IP address) (see col. 5, lines 64-65); a wide area cellular communications module disposed within the housing (i.e., dual mode mobile station: a WWAN mode and a WLAN mode) (see abstract, and col. 3, lines 18-20), the wide area cellular having a cellular interface to communicate with a remote wide area cellular network (i.e., the dual mode is served by a cellular base station) (see

Art Unit: 2617

col. 3, lines 18-20); and a short-range wireless local area network module disposed within the housing (i.e., dual mode mobile station: a WWAN mode and a WLAN mode) (see abstract, and col. 3, lines 18-20), the short-range wireless local area network module having a wireless interface to communicate with a wireless local area network having voice over internet protocol communications capability (i.e., the dual mode mobile station monitors WLAN availability).

Although Fors discloses a mobile phone device as described above, Fors does not specifically disclose a mobile phone device, wherein the wide area cellular communication module formulates a call forwarding message that includes the internet protocol address, the call forwarding message to be communicated to the remote wide area cellular network.

However, Ibe discloses that when a mobile node is connected to a foreign network, which is any network that is not its home network, it registers its care-of-address (COA) with the home agent, which is a router that serves the mobile nodes in a given network. The home agent uses the COA to forward packets arriving at the home network and destined for the mobile node. The tunnel from the home agent terminates at the foreign agent (a router in the visited (foreign or roaming) network whose IP address the mobile uses as its COA), and it is the responsibility of the foreign agent to forward packets arriving via the tunnel to the mobile node (see paragraphs 7-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Ibe with the teachings as disclosed by Fors to arrive at the claimed invention. A combination for doing so would have been to ensure that data is routed to the proper network as related to the network that has been determined to provide cheaper service (see col. 5, line 62 through col. 6, line 7).

Regarding claim 15, Fors discloses a device (see claim 14 rejection) wherein the wide area cellular communications module and the short-range wireless local area network module are computer software modules integrated within a digital processor device (i.e., dual mode mobile station) (see abstract, and col. 3, lines 18-20)

Regarding claim 20, Fors discloses a method (see claim 1 rejection) wherein the Internet protocol address is received at the mobile phone from the wireless local area network base station via a wireless connection (see fig. 2a, and col. 5, lines 62-65).

4. Claims 5-6, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fors and Ibe, further in view of Chandra et al. (Chandra), Pub. No. US 20030217180.

Regarding claims 5 and 18, Fors and Ibe disclose a method further comprising determining that the mobile phone has moved out of range of the wireless local area network base station (see Ibe abstract, and paragraphs 18, 45-46). Ibe also discloses a method that enables a mobile device to originate a data connection in a WLAN and have this data connection be automatically handed off to the WWAN without losing the connection when the user goes outside the range of the WLAN (see abstract, and paragraphs 18, 45-46). Thus, it would have been obvious to one skilled in the art to immediately envision that when data connection is handed off to the WWAN, communication between the mobile phone and the WWAN is done through the WWAN spectrum (i.e., cellular spectrum).

Although the combination discloses a method and a device as described above, the combination does not specifically disclose sending a message to the cellular network element to cancel (the previously communicated call forwarding message to be sent to the remote wide area

cellular network---as related to claim 18) call forwarding to the wireless local area network base station.

However, Chandra discloses a method wherein a mobile node roams back to the home network. The mobile node sends a deregistration request to the home agent, requesting the home agent delete its bindings. The mobile node can delete the bindings to the mobile node. If a tunnel were created, it would also be deleted (see paragraphs 39-40). Thus, it would be obvious to one skilled in the art (combining the teachings of Chandra with Fors and Ibe) that when the mobile node roams back to the home network, it sends a message (i.e., deregistration message) which indicates to the home agent to delete bindings, tunnel information (i.e. care-of-address), which would indicate that the forwarding of data using the care-of-address (as related to tunneling) will be cancelled. It would also be obvious to one skilled in the art to immediately envision (combination the teachings of Chandra with Fors and Ibe) that if the mobile node roams back to its network, the home network will be ending data directly to the mobile node without using bindings or tunnel, since that information would be canceled.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Chandra with the teachings as described by Fors and Ibe to arrive at the claimed invention. A motivation for doing so would have been to provide better quality of service or free up space.

Regarding claim 6, Ibe discloses a method wherein the wide area cellular network sends a call directly to the mobile phone over a cellular spectrum after the mobile phone has moved out of range of the wireless local area network (i.e., Ibe discloses a method that enables a mobile device to originate a data connection in a WLAN and have this data connection be automatically

handed off to the WWAN without losing the connection when the user goes outside the range of the WLAN) (see abstract, and paragraphs 18, 45-46). Thus, it would have been obvious to one skilled in the art to immediately envision that when data connection is handed off to the WWAN, communication between the mobile phone and the WWAN is done through the WWAN spectrum (i.e., cellular spectrum).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Chandra with the teachings as described by Fors and Ibe to arrive at the claimed invention. A motivation for doing so would have been to provide better quality of service or free up space.

### ***Conclusion***


5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Pierre-Louis Desir  
08/13/2007

  
JOSEPH FEILD  
SUPERVISORY PATENT EXAMINER